

I CLAIM

1. In a pit lid assembly for an aircraft servicing subsurface pit enclosure buried beneath a ground surface across which aircraft travel while on the ground, and having a pit lid support located atop said subsurface pit enclosure defining an access opening to said pit enclosure surrounded by an inwardly projecting lid supporting rim with a lip defined therebeneath, and a pit lid having an upper surface and a hinge leaf hinged to said pit lid support, whereby said pit lid is alternatively movable to a closed position seated upon said lid supporting rim and an open position exposing said access opening, the improvement comprising:

a pit lid latch assembly mounted in said pit lid remote from said hinge leaf and including:

a latch mount with a passageway defined therein which is inclined downwardly away from said upper lid surface and outwardly away from said hinge leaf,

a latch member disposed for longitudinal, reciprocal movement within said passageway and having a proximal end with a grip thereon accessible from said upper surface of said pit lid and an opposite, distal end, and

a biasing mechanism urging said distal end of said latch member away from said upper surface of said pit lid and away from said hinge leaf, whereby said biasing mechanism, unless overcome by an opposing force, forces said distal end of said latch member beneath said lip when said pit lid is in said closed

position.

2. A pit lid assembly according to Claim 1 wherein said latch mount is a block having an undersurface with a cavity defined therein, and said latch member is a rod with a spring retainer at said distal end thereof, and said biasing mechanism is a coil spring disposed coaxially about said rod and compressed between said spring retainer and said undersurface of said block.

3. A pit lid assembly according to Claim 2 wherein said grip is formed as a T-shaped handle.

4. A pit lid assembly according to Claim 3 further comprising a limit stop on said latch member to limit movement of said latch member in a direction away from said upper surface of said pit lid.

5. A pit lid assembly according to Claim 4 wherein said latch member has a cylindrical outer surface with a pair of radial, annular channels defined therein, one at said proximal end and the other at said distal end, and said spring retainer and said limit stops are formed as C-clips secured in said channels.

6. A pit lid assembly according to Claim 1 wherein said passageway is oriented at an angle of about 51 degrees relative to said upper surface of said pit lid.

7. A pit lid assembly according to Claim 1 wherein said pit lid is provided with an edge recess in said upper surface thereof and said latch mount is disposed in said edge recess, whereby said biasing mechanism urges said grip at said proximal end of said latch member to a location beneath the level of said upper surface of said pit lid.

8. An aircraft servicing pit lid assembly for a subsurface aircraft servicing pit enclosure buried beneath a ground surface across which aircraft travel during docking and undocking, comprising:

a pit lid support for use atop said pit enclosure and having a flat upper surface and defining a lid seating ring recessed beneath said flat upper surface and having an underside and a hinge seating pocket adjacent said lid seating ring,

a pit lid configured to seat within the confines of said pit lid support upon said seating ring and having a hinge leaf projecting laterally into said hinge pocket and a hinge coupling between said hinge leaf and said pit lid support, whereby said pit lid is rotatable relative to said pit lid support between an open condition exposing said access opening and a closed position seated upon said seating ring, and

a pit lid latch guide located on said pit lid remote from said hinge leaf and defining a latch passageway inclined downwardly relative to said pit lid away from said upper surface and away from said hinge leaf,

a latch bolt disposed for reciprocal, linear movement and constrained by said latch passageway, wherein said latch bolt has a grip end accessible from said upper surface of said pit lid and an opposite, distal end for engaging said underside of said seating ring, and

a resilient spring urging said distal end of said latch bolt beneath said underside of said seating ring when said pit lid is closed.

9. An aircraft servicing pit lid assembly according to Claim 8 wherein said pit lid is provided with an edge recess opposite said hinge leaf and said pit lid latch guide is a mounting block located within said edge recess.

10. An aircraft servicing pit lid assembly according to Claim 9 wherein said distal end of said spring is provided with a spring retainer and said resilient spring is a coil spring disposed coaxially about said a latch bolt and said resilient spring is compressed between said spring retainer and said mounting block and said grip end of said latch bolt is provided with a T-shaped handle.

11. And aircraft servicing pit lid assembly according to Claim 8 wherein said latch passageway is inclined at an angle of about 51 degrees relative to said pit lid.

12. A latch assembly for an aircraft service pit having a lid frame formed with an access opening encompassed within an upwardly facing bearing ledge that is lower than and surrounded by a horizontal deck, and a pit lid having a flat upper surface, a hinged edge hinged at a horizontal axis of rotation to said lid frame, and an opposite latching edge, comprising a latch mechanism mounted on said latching edge of said pit lid remote from said horizontal axis of rotation and including a latch mount defining a latch guide path inclined downwardly from said flat upper surface and outwardly toward said latching edge, a latch bolt reciprocally mounted for movement in said latch guide path and having a gripping end accessible from said flat upper surface and an opposite, bearing ledge engaging end, and a spring exerted a biasing force on said latch bolt downwardly from said upper surface and outwardly from said latching

edge to urge said bearing ledge-engaging end of said latch bolt into engagement beneath said bearing ledge.

13. A latch assembly according to Claim 12 wherein said pit lid has an edge recess defined therein at said latching edge, said latch mount is a mounting block disposed in said edge recess beneath the level of said flat upper surface, and said latch guide path is oriented at an angle of about 51 degrees relative to said flat upper surface.

14. A latch assembly according to Claim 13 wherein said spring is a coil spring compressed between said latch mount and said bearing ledge engaging end of said latch bolt and a T-shaped handle is formed at said gripping end of said latch bolt.